EPA Feedback received 04/25/2022	Document Location	CRC Response
Injection Well Construction		
There appear to be typos regarding tubing outside diameter and weight and the packer tensile rating for Well 355-7R in Attachment G2. Please reconcile these inconsistencies:	COP p4	There are no typos
The outside diameter of the injection tubing (on Table 6 of Narrative A2) is 00.	COP p5	Corrected to 4.5" OD
o The tensile rating (of "10,0000" lbs) for the packer on pg G2 of Attachment G2.	COP p5	Corrected to 200,000 lbs
Please explain how the current well architecture—with the 7" (injection/long) string cemented to 5,200 ft, which is above the confining layer was engineered and constructed to ensure protection of USDWs, per 40 CFR 146.86(a)(1). Page 5	COP p4	Revised verbiage in cement section, expanded USDW protection section
Please describe the fluid in the annulus between the tubing and the long string casing, including how it is a non-corrosive fluid, as required by 40 CFR 146.88(c).	COP p5	Added Annular Fluid section specifying that corrosion inhibitor and biocide additives will be added to the 4% KCL annular fluid
Please describe the specific materials that will be removed from well 355-7R, and provide details regarding the corrosion-resistant tubing, packer, and wellhead materials that will replace these.	COP p4	The existing 4-1/2" tubing and packer will be removed
Is Well 355-7R equipped with automatic shutoff systems connected to the real-time surface monitoring equipment and alarms, as required at 146.88(e)(2)? If so, please describe these systems in Attachment G2 and how the safety valves and shut-off devices will be linked to the continuous injection and annulus monitoring system. If not, please update Attachment G2 to include these required components.	COP p5	Added Alarms and Shut-off Devices section
Please discuss the duration that free phase water is expected to be present at the beginning of the injection phase and the corresponding impact on tubing integrity. For example, please provide additional discussion regarding the study of this phenomenon, e.g., in existing, nearby CO2 injection wells.	COP p4	CRA tubing material selection and short duration result in no/minimal impact to tubing integrity
Figure 1 of Attachment G2 is illegible. Please submit an updated, resolvable diagram for Well 355-7R that includes the following information:	Injection & Monitoring Well Schematics_v2	Complete, document will be CBI
o All relevant formations (e.g., the injection and confining zones and the base of the USDW);	Injection & Monitoring Well Schematics_v2	Complete, document will be CBI
o Either surface casing that extends through the base of the USDW, per 40 CFR 146.86(b)(2), or an explanation of how the well's construction otherwise ensures protection of USDWs, per 40 CFR 186(a){1};	COP p4	Intermediate casing isolates USDW, see Protection of USDW
o The depths of the perforations; and o Please label the well diagram to indicate that the well is a Class VI (i.e., not Class II) well.	Injection & Monitoring Well Schematics_v2	Well is currently Class II. Well schematic does not include this label.
What is the surface elevation (i.e., relative to mean sea level) at the location of the well?	COP p1	714' above MSL
Please include relevant information from Narrative A2 about the construction of the well into Attachment G2 for completeness.	COP document	Combined A2, G2, D2 documents into COP
Please provide versions of Attachments A2 and G2 in full page mode to improve their legibility.	COP document	Combined A2, G2, D2 documents into COP
For completeness, please include the description of testing of the deep monitoring wells (i.e., as described in Attachment G) in Attachment G2.	POT document	Will address in POT document
Please explain how the injection well's design will mitigate potential shallow compression related to land subsidence while still complying with the requirement to cement to the surface.	COP p3	Added comment to that subsidence is not expected or historically observed around the injectors, and CTV will acquire CBL
Please provide the most recent SAPT reports for the well.	COP p9	Complete
Injection Well Pre-Operational Testing		
Please provide the results of the temperature log and SAPT that were performed on Well 355-7R.	COP p8-9	Complete
Figure 2 of the 355-7R Logging and Testing document is illegible. Please provide a legible log plot demonstrating open-hole well logs for Well 355-7R.	COP p7	Complete
The CBL provided with the Logging and Testing plan does not cover the entire injection and confining zones. Please provide a CBL that covers the entire injection and confining zones and explain the varying amplitude and seismogram signal throughout both zones.	POT document	A CBL of the full well will be acquired when the tubing is removed during pre-perational testing (POT)
Well Stimulation		
To avoid the need for a permit modification if stimulation were to become necessary in the future, EPA requests that CTV prepare a draft stimulation plan. EPA can provide some additional guidance about the content of the plan, but anticipates that the plan should describe:	Attachment I - Stimulation Plan_v1	CTV does not intend to address stimulation at this time
o The stimulation fluids to be used, including any additives (e.g., corrosion inhibitors, clay inhibitors, biocides, complexing agents, or surfactants) or diverting agents; and	Attachment I - Stimulation Plan_v1	
o Step-by-step procedures that would be employed during stimulation.	Attachment I - Stimulation Plan_v1	
Monitoring Well Pre-Operational Testing		
What specific MITs are planned for monitoring wells 342-7R-RD1 and 327-7R-RD1?	POT document	Will address in POT document
Please include information about MITs on the deep monitoring wells in Attachment G2 for completeness	POT document	Will address in POT document
Injection Well Plugging Plan		
Please include "flushing" among the steps to be completed prior to injection well plugging, in accordance with 40 CFR 146.92(a).	COP p12	Complete, see Plugging Procedures step 2
Please provide a plugging schematic that includes: o Labels of the USDW and other relevant formations (i.e., the injection and confining zones) and all perforations; and o Plug coverage (for Plugs #1-4) that corresponds to the depth of the Base of the USDW and the perforations in Figure 1 of Attachment G2.	Injection & Monitoring Well Schematics_v2	Complete, see Plugging Procedures step 2
Please provide a full-page printout of Attachment D2. Page 10	COP p12-15	Document PDF in full page mode. Not sure what page 10 refers to, as D2 was a 3 page doc.
Please confirm that the Class G cement blend is the same as the Class G Portland cement that was used in the well's construction, and that this cement is CO2-resistant.	COP p12	Added to Information on Plugs section
Please revise the diameter of boring for Plug #4 listed in Table 1 of Attachment D2 (6.366 in.) to correspond to the Well 355-7R construction details listed in Attachment G2 (6.184 in).	COP p11, table 5	Corrected